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### **Refining housing and care of laboratory animals – the way forward?**

#### **Abstract**

Housing refinement for laboratory animals has been the hot topic of the last two decades; as a result we have regulatory documents detailing what is considered improved housing and care. These contain specific wordings tailored to the level of species or groups of species, not accounting for needs of specific strains and stocks. However, species are different in their responses, and there is ample evidence that the same applies to mouse and rat strains.

Optimally we should strive for strain specific housing and care policies. It is obvious that regulatory documents will not go to that level leaving us to ponder how strain specific housing and care can be reached without noncompliance with the regulations. It is common for laboratory animal scientists to state that application of the Three Rs (Refinement, Reduction and Replacement), as such means better science, while the message is that this is ethically better science. Whether the application truly results in better quality science, e.g. in terms of validity and repeatability, is another and highly important topic. Is there activity towards this goal with high likelihood to make real progress in this respect? Housing and care policies and regulations for research animals rely on existing scientific data or best practice available. These are based on narrative reviews, which do not systematically assess the quality of the scientific articles they refer to.

Recent findings of deficiencies in reporting of animal studies may well apply to scientific articles on housing and care. Would regulatory pieces look the same if similar quality assessment of original articles had been done? This constitutes a major challenge to future studies on laboratory animal housing and care. Do we have the means and the commitment this challenge requires?